

# **METHODS AND COMPOSITIONS FOR MODULATING AGONIST-INDUCED DOWNREGULATION OF G PROTEIN- COUPLED RECEPTORS**

## **ABSTRACT OF THE DISCLOSURE**

**[0306]** The present invention provides polypeptides (termed "GASP") that modulate post-endocytic sorting of a variety of G protein-coupled receptors, thereby modulating agonist-induced downregulation of such receptors. The invention also provides methods of modulating agonist-induced downregulation of G protein-coupled receptors, as well as GASP polypeptides and anti-GASP antibodies. In addition, the invention provides a delta opioid receptor (DOR) polypeptide containing the GASP binding domain. The invention encompasses related polynucleotides, vectors, host cells, production methods, and compositions. Moreover, the invention includes methods for prescreening or screening for test agents that modulate agonist-induced downregulation of G protein-coupled receptors.